B

Table 1 – Studies Examining Plasma or Serum Tryptophan in HIV infected patients

Tryptophan concentration	Intervention	Other Measures	Comments	Reference [year]
44.8 μmol/l in infected patients verses 91.0 μmol/l in controls	None specified	KT ratio was 3:1 in patients verses controls	Increased KT ratio suggests that increased TO not dietary or other types of loss explain lower concentration	Werner et al. [1988]
28.4 μmol/l in infected patients verses 39.7 μmol/l in controls	No patients on antiretroviral medications	CSF tryptophan 1.52 μmol/l in infected patients verses 2.18 μmol/l in controls	Lower tryptophan concentrations most pronounced at low CD4 counts	Larsson et al. [1989]
48.8 μmol/l in infected patients with dementia or neuropathy, 70.5 μmol/l in patients without dementia or neuropathy, and 91.1 μmol/l in controls	None specified	Neopterin concentrations have a reciprocal relationship to tryptophan concentrations	Neurological findings correlated with lower tryptophan concentrations. (Note - same control group as Werner et al.)	Fuchs et al. [1990a]
29.8 μmol/l in infected patients verses 39.7 μmol/l in controls	None specified	Serum IFNγ levels were 159 U/liter in patient serum verses 33 U/liter in control serum.	Inverse correlation between tryptophan and IFNγ concentrations noted.	Fuchs et al. [1990b]
57 μmol/l in infected patients verses 91 μmol/l in controls	38% of patients on ZDV monotherapy	IFNγ 259 U/l in infected patients and 23.5 U/l in controls. Kynurine 3.45 μmol/l in infected patients verses 2.31μmol/l in controls.	P<0.001 for the inverse correlation between tryptophan and IFNγ concentrations. No separate analysis based on antiviral therapy.	Fuchs et al. [1991]
40.2 μmol/l in infected patients verses 70.9 μmol/l in controls	No patients on antivirals	Tryptophan decreases accompanied proportional increases in kynurenine and quinolinic acid in both serum and CSF	Elevated concentrations of the neurotoxic intermediate QA demonstrated.	Heyes et al. [1992]
22 μmol/l in infected patients verses 46 μmol/l in controls	85% of patients on mono or dual nucleoside therapy	Decrease cystine, trypto, methionine, increased taurine, lysine	Trypto and lysine showed trend of lower/higher with cd4 less than 200. No separate analysis based on	Hortin et al. [1994]

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			antiviral therapy	
51 μmol/l in infected patients verses 59 μmol/l in controls	None specified	Plasma concentrations of amino acids pre and post IV infusion of amino acids.	Despite lower concentrations, tryptophan does not appear to be rate limiting in protein synthesis in AIDS patients.	Laurichesse et al. [1998]